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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/126,622	07/30/1998	CORMAC HERLEY	10970294-1	9131

7590 10/04/2005
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EXAMINER

QUIETT, CARRAMAH J

ART UNIT PAPER NUMBER

2612

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/126,622	HERLEY, CORMAC	
	Examiner	Art Unit	
	Carramah J. Quiett	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-17, 19-25 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-17, 19-25 and 27-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 1998 and 06 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/22/2005 has been entered.

Response to Amendment

2. The amendment(s), filed on 07/22/2005, have been entered and made of record. Claims 11-17, 19-25, and 27-32 remain pending. As noted by the Applicant, claims 1-10, 18, and 26 had been previously canceled.

Response to Arguments

3. Applicant's arguments 07/22/2005 have been fully considered but they are not persuasive.

In response to Applicant's comments regarding the Examiner's previous Office Action, the Examiner respectfully disagrees. The Applicant asserts that the rejection for claims 11-17, 19-25 and 27-32 under 35 U.S.C. 103(a) as being unpatentable over Weldy et al. (US #6,181,826) in view of Yamagata (US #6,263,106) do not teach or suggest releasing space used to store the second compressed image data set associated with the raw image in the secondary storage area of the image storage device to store a first compressed image data set associated with another raw image when insufficient space is available in the primary storage area of the

image storage device to store the first compressed image data set associated with another raw image. However, the Examiner respectfully disagrees.

The Examiner has discussed what Weldy, the primary reference, teaches and does not teach (please review the 103 rejection below). Yamagata, the secondary reference, has been used to teach releasing space used to store the second compressed image data set associated with the raw image in the secondary storage area of the image storage device to store a first compressed image data set associated with another raw image when insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set associated with another raw image. In fig. 4, Yamagata teaches that his video camera has different modes. After images are captured and stored in the photographing mode/procedure (figs. 4, 6, and 7), a user can decide to compress the stored images in a compression mode/procedure. Please note that it is inherent for the data to be raw images when the images are captured and for the raw images to be associated with (or related to) the processed images. The compression procedure is further explained in figs. 10-12. By glancing at fig. 10, it appears as though the compression is inhibited at S157 when the method proceeds to photographing mode. However, by reading the explanation in col. 10, lines 16-65, Yamagata teaches that a file containing the image to be compressed is selected by operating the frame forward/backward button. In fig. 12, Yamagata provides an example of compressing an image by selecting file No. 5. Yamagata also teaches that the compression inhibition flags can be set to 0, which means that compression of the corresponding data *is permitted*. Then, the user can select the type of compression. As stated in the previous Office Actions, in fig. 12, Yamagata

Art Unit: 2612

demonstrates how space is freed (another word for released) for more storing more files (col. 10, lines 44-65).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 11-17, 19-25 and 27-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Weldy et al. (US #6,181,826) in view of Yamagata (US #6,263,106).

Note: Claims 19-22 will be discussed first.

Regarding **claims 19-22**, in figures 5, 7 and 8, Weldy '826 teaches a system of processing digital images comprising:

means for inputting a raw image (base image 16, image E/F/G/H, image AA-AN; col. 7 lines 44-62; col. 9 line 59 - col. 10 line 28);

means for generating from the raw image, including employing a first quantizing step, a first compressed image data set suitable for reproducing substantial the entire image at a first quality level (quantizer 30, base 8 bits 3 1; reconstruct lineage EF, spatially convert circuit 60A/6013; col. 7 line 44 - col. 9 line 14; col. 9 line 59 - col. 10 line 28; col. 15 line 43 - col. 16 line 44); and

means for generating from the raw image, including employing a second quantizing step independent of the first quantizing step, a second compressed image data set which when combined with the first compressed image data set reproduces substantially the entire image at a second, higher quality level (quantizers 32/34/36, base images 33/35/37, reconstruct image GH,

Art Unit: 2612

reconstructed image 59, spatially convert 60C/60N, combine images 61 and reconstructed image 63; col. 7 line 44 - col. 9 line 14; col. 9 line 59 - col. 10 line 28; col. 15 line 43 - col. 16 line 44).

Claims 19-22 differ from Weldy in that the claim further requires that the system of processing images in a digital camera including primary and secondary storage areas for storing compressed image data. Claims 19-22 also differ from Weldy in that the claim requires means for releasing space used to store the second compressed image data set associated with the raw image in the secondary storage area to store a first compressed image data associated with another raw image when insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set associated with another raw image. However, it is well known in the art to store and compress digital images having different compressed formats in a digital camera, as taught in Yamagata '106.

In the same field of endeavor, Yamagata '106 teaches a digital camera (see Figs. 1-2) including an image data compression/expansion circuit (44) and an IC memory card (M), wherein image data files can be stored in the memory card (M) in different compressed formats (see Figs. 3 and 12). For the purpose of storing additional image data files when insufficient space is available, Yamagata further teaches means for releasing space used to store the second compressed image data set associated with the raw image in the secondary storage area to store a first compressed image data associated with another raw image when insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set associated with another raw image (Figs. 10-12; col. 10 line 16 – col. 12 line 33). Particularly, in fig. 12, Yamagata demonstrates how space is freed (another word for released) for more storing more files (col. 10, lines 44-65). In light of the teaching from Yamagata, it

Art Unit: 2612

would have been obvious to one of ordinary skill in the art at the time the invention was made to include the system of processing digital images taught in Weldy in a digital camera in order to provide images having different compressed resolutions as desired by the user. Furthermore, in light of the teaching from Yamagata, it would have been obvious to one of ordinary skill in the art to modify the system of processing images in a digital camera taught in Weldy by storing the compressed image data in primary and secondary storage areas and permitting releasing space in the secondary storage area in order to store additional image data, thus ensuring that no images are lost due to the lack of capacity in the storage areas. It is noted that Yamagata teaches JPEG compression means (col. 1 lines 16-18; col. 5 lines 40-52).

As to **claims 23 and 24**, Yamagata teaches that the images recorded in the image memory card can be selectively deleted or compressed (see col. 1 lines 35-44. In light of the teaching from Yamagata, it would have been obvious to one of ordinary skill in the art at the time the invention was made to release space in the image memory card in a first-in-first-out order or in a last-in-first-out order as desired by the user.

As to **claim 25**, Yamagata teaches that the images having higher image quality are being selectively kept by the user (col. 1 lines 27-43; col. 5 line 27 - col. 6 line 36).

Regarding **claims 11-17**, they are method claims corresponding to the apparatus claims 19-25, respectively. Therefore, claims 11-17 are analyzed and rejected as previously discussed with respect to claims 19-25.

Regarding **claims 27-32**, the limitations in claims 27-32 can be found in claims 19-25.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakagawa (6,757,479) A camera device with DRAM, which stores compressed data.

Suzuki (5,724,579) Image processing apparatus stores main image data and subordinate image data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carramah J. Quiett whose telephone number is (571) 272-7316. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CJQ
September 27, 2005


NGOC-YEN VU
PRIMARY EXAMINER